

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. – 87. (Cancelled)

88. (Currently Amended) A method to configure, via a management interface, an Impulse Noise Protection (INP) capability comprising:

receiving information, at the management interface, indicating ~~one or more of a length and a repetition period of impulse noise events, the repetition period indicating how often impulse noise events occur;~~ and

updating, based on the received information, a first INP value to a second, different, INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected and the second INP value specifying a second number of corrupted DMT symbols that can be corrected, wherein the second number is different than the first number.

89. (Currently Amended) The method of claim 88, wherein ~~the length of the impulse noise is a maximum length~~ the received information indicates the presence of periodic impulse noise due to AC power lines.

90. (Currently Amended) The method of claim 88, wherein the repetition period ~~of impulse noise is a maximum period~~ includes information on how often the impulse noise is occurring.

91. (Currently Amended) The method of claim 88, wherein ~~the information indicates one or more of a length of impulse noise and a repetition period where a greater INP is needed~~ the second number is different than the first number because an interleaving function spreads an impulse noise event over a period of time that exceeds the repetition period.

92. (Previously Presented) The method of claim 88, wherein a service provider or operator updates the first INP value.

93. (Previously Presented) The method of claim 88, wherein a management module automatically updates the first INP value.

94. (Previously Presented) The method of claim 88, wherein a message is used to communicate the second INP value.

95. (Previously Presented) The method of claim 88, wherein the length of the impulse noise exceeds a correction capability of the first INP value.

96. (Currently Amended) A method to configure, via a management interface, an Impulse Noise Protection (INP) capability comprising:

configuring, at the management interface, a first INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected;

receiving impulse noise information, at the management interface, indicating ~~one or more of a length and a~~ repetition period of impulse noise events, the repetition period indicating how often impulse noise events occur, wherein the received impulse noise information indicates a requirement to increase the first INP value; and

updating, based on the received information, the first INP value to a second, greater, INP value, the second INP value specifying a second number of corrupted DMT symbols that can be corrected, wherein the second number is different than the first number.

97. (Previously Presented) The method of claim 96, wherein the length of the impulse noise is a maximum length.

98. (Currently Amended) The method of claim 96, wherein the repetition period of the impulse noise is a maximum period.

99. (Currently Amended) The method of claim 96, wherein the received impulse noise information indicates an impact of impulse noise.

100. (Previously Presented) The method of claim 96, wherein a service provider or operator updates the first INP value.

101. (Previously Presented) The method of claim 96, wherein a management module automatically updates the first INP value.

102. (Previously Presented) The method of claim 96, wherein a message is used to communicate the second INP value.

103. (Previously Presented) The method of claim 96, wherein the length of the impulse noise exceeds a correction capability of the first INP value.

104. (Currently Amended) A method to configure, via a management interface, an Impulse Noise Protection (INP) capability comprising:

configuring, at the management interface, a first INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected;

receiving impulse noise information, at the management interface, indicating ~~one or more~~ of a length and repetition period of impulse noise events, the repetition period indicating how often impulse noise events occur, wherein the received impulse noise information indicates a requirement to decrease the first INP value; and

updating, based on the received information, the first INP value to a second, lesser, INP value, the second INP value specifying a second number of corrupted DMT symbols that can be corrected, wherein the second number is different than the first number.

105. (Currently Amended) ~~Means~~ A system for configuring, via a management interface, an Impulse Noise Protection (INP) capability comprising:

means for receiving information, at the management interface, indicating ~~one or more of~~ a ~~length and~~ repetition period of impulse noise events, the repetition period indicating how often impulse noise events occur; and

means for updating, based on the received information, a first INP value to a second, different, INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected and the second INP value specifying a second number of corrupted DMT symbols that can be corrected, wherein the second number is different than the first number.

106. (Previously Presented) The system of claim 105, wherein the length of the impulse noise is a maximum length.

107. (Currently Amended) The system of claim 105, wherein the repetition period of the impulse noise is a maximum period.

108. (Previously Presented) The system of claim 105, wherein the information indicates one or more of a length of impulse noise and a repetition period where a greater INP is needed.

109. (Previously Presented) The system of claim 105, wherein a service provider or operator updates the first INP value.

110. (Previously Presented) The system of claim 105, wherein a management module automatically updates the first INP value.

111. (Previously Presented) The system of claim 105, wherein a message is used to communicate the second INP value.

112. (Previously Presented) The system of claim 105, wherein the length of the impulse noise exceeds a correction capability of the first INP value.

113. (Currently Amended) A system Means for configuring, via a management interface, an Impulse Noise Protection (INP) capability comprising:
- means for configuring, at the management interface, a first INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected;
  - means for receiving impulse noise information, at the management interface, indicating ~~one or more of a length and~~ repetition period of impulse noise events, the repetition period indicating how often impulse noise events occur, wherein the received impulse noise information indicates a requirement to increase the first INP value; and
  - means for updating, based on the received information, the first INP value to a second, greater, INP value, the second INP value specifying a second number of corrupted DMT symbols that can be corrected, wherein the second number is different than the first number.
114. (Previously Presented) The system of claim 113, wherein the length of the impulse noise is a maximum length.
115. (Currently Amended) The system of claim 113, wherein the repetition period of the impulse noise is a maximum period.
116. (Currently Amended) The system of claim 113, wherein the received impulse noise information indicates an impact of impulse noise.
117. (Previously Presented) The system of claim 113, wherein a service provider or operator updates the first INP value.
118. (Previously Presented) The system of claim 113, wherein a management module automatically updates the first INP value.
119. (Previously Presented) The system of claim 113, wherein a message is used to communicate the second INP value.

120. (Previously Presented) The system of claim 113, wherein the length of the impulse noise exceeds a correction capability of the first INP value.

121. (Currently Amended) Means for configuring, via a management interface, an Impulse Noise Protection (INP) capability comprising:

means for configuring, at the management interface, a first INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected;

means for receiving impulse noise information, at the management interface, indicating ~~one or more of a length and~~ repetition period of impulse noise events, the repetition period indicating how often impulse noise events occur, wherein the received impulse noise information indicates a requirement to decrease the first INP value; and

means for updating, based on the received information, the first INP value to a second, lesser, INP value, the second INP value specifying a second number of corrupted DMT symbols that can be corrected, wherein the second number is different than the first number.